



CONNECTION

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SENSATIONAL STARSHIP 1™ IS FOR EVERYONE

The tremendous popularity of the space theme in television shows and movies is now reflected in Coin-Op games with *Starship 1™*. This single player video game puts the players in command of their spaceship. They experience the thrill of speeding through the galaxy and adventure of destroying enemy threats while avoiding crashes.

The three-dimensional effects give a realistic sensation of the depths of space while enemy ships and space monsters approach in an unpredictable pattern. Players use lasers and proton torpedos to defend their ship. Directional controls allow them to maneuver their position in defensive action and to avoid crashes. Optional bonus time allows players to go into Hyperspace.

Starship 1 is designed to attract players in any street or arcade location. It appeals

to all ages and presents new challenges in each play of the game with its random play pattern. The futuristic design of the game also enhances its attraction.

"*Starship 1* proved to be the number one single player video game in field testing and is certain to show record breaking collections in any location. Dynamic action and graphics give the game an impact second to none," said Marshall Caras, Director of Marketing.

Atari's exclusive built-in self-test system and trouble-free coin door are included to assure maximum income potential.

The sensational experience of playing *Starship 1* and its futuristic attraction gives this game unique appeal. Players will compete to achieve the highest score and "Save their Cosmic Federation".



TIME 2000™ FEATURES PLAY APPEAL

The newest attraction in pinball games is *Time 2000™* from Atari. Spectacular play action and visual impact highlight this four player game. Double flipper playfield design and double bonus features gives players double incentives for replay.

Two bonus sequences, an AM and PM Bonus Clock, with double and triple bonus features allow players to accumulate up to 72,000 bonus points. A variety of skill shots including drop targets, ball return lane and a new captive thumper bumper add to the fast action and high scoring features on the game. The popular ball return gate is also featured in the play action. These features and more are accompanied by Atari's exceptional sound sensation which has proven to be a highly favorable attraction.

Operator options on *Time 2000* include eight game cost selections, eight maximum credit levels, three different "specials" with liberal or conservative settings, a tilt sound option, match score option, three or five ball game, and sixteen different replay score levels. The game can be set to suit any location need.

Durastress™ tested solid state circuitry assures high reliability of all electronic components. The built-in self-test system assists in diagnosing problems to minimize down time. Atari's new trouble-free coin door is also included.

Frank Ballouz, National Sales Manager, said, "Field reports have proven that *Time 2000* has the ability to provide exceptional earning power in the Atari tradition."



LOCATION PROFILE—GAME CENTER IN RETAIL STORES

Retail stores are now becoming aware of the profitability of having a separate game area in their locations. "Profit per square foot" is the major selling point and can be applied in all types of retail outlets from food to general merchandise.

Kent Knudsen, a progressive operator in Utah, has successfully placed games in a chain of discount department stores. He started operating kiddie rides at the Grand Central Stores four years ago. Shortly after video games were introduced he began adding them in the entrance area of the stores and realized the excellent potential for high profits. About one year ago, the Grand Central Chain began designing a separate Family Game Center near the entrance of all their new stores. Each store has an average of 4 to 6 games.



"If a store has high volume and will provide space for the games in a traffic area, preferably near the entrance, this can be a high income location for operators," said Kent Knudsen. He noted that moving the games away from the entrance area can reduce collections as much as 40%. "But you can't just take 'old junk' out of an arcade and expect it to earn large dollars. You need to go in with good equipment like Sprint 2™ or Drag Race™. These locations warrant good games and the income will substantiate the investment," he adds. Mr. Knudsen indicated that driving games and fast action games have been the best for him over the long term.

An article in the July/August issue of Convenience Stores Magazine features a small chain store in Texas, Colonial Food Stores, who have remodeled their stores to include a separate game room. Ray Hawkins, President of Colonial, indicated that the income from the games covered the cost of remodeling in less than three weeks. Hawkins also pointed out that the addition of the game room is "a

rearrangement, not a reduction of merchandising area."

The executives at Colonial are enthusiastic about the concept of game areas in their stores. They feel that the added income from the games is substantial and the young people playing the games will also make additional purchases in their stores. In addition to increasing potential profits, Mr. Hawkins said, "This is now a mini-entertainment center in a neighborhood setting, in a healthy environment."

These are two examples of successful game operation in retail stores where a separate game area has been designed. It is a profitable concept for both the store and the operator. Although there are many retail outlets with games, there are many more potential new locations where this idea can be implemented.

TO THE COIN-OP PEOPLE

On June 27th Atari, Inc. celebrated its fifth birthday. We are proud of our accomplishments in the coin-op industry over the past years.

I would like to take this opportunity to thank all of you in the industry who have contributed to our success. We sincerely appreciate the distributors, operators, service technicians and others who have supported Atari and our products in the past five years.

Sincerely,

Nolan K. Bushnell
Chairman of the Board

PUBLIC RELATIONS COUNTS

C. A. Robinson Co., Los Angeles, received recognition for a game donation to a San Diego Elementary School. Touch Me™ and Pong™ games were donated for use in a Special Education Program for students in 1st through 6th grades. It is evident that these youngsters benefited from the game. Mrs. Cecelia Davis, Special Education teacher, wrote, "The children not only had fun, but improved

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BRADY REPRESENTS ATARI IN VIRGINIA



Brady Distributing Co., Charlotte, North Carolina, has expanded its sales territory to represent Atari in the state of Virginia as well as North Carolina. Brady has appointed Bill Carnohan as their Sales Representative in Virginia. He is based in Richmond.

"Bill has a strong background in marketing and sales of coin-op products," said Jon Brady. "Being active in the Virginia trade association together with his 2½ years with Rowe International in that area, we are confident that he will enhance our sales efforts in the Virginia area," he added.

Brady has been an Atari distributor since 1973. They have been in the distributing business for over thirty years. Brady has excellent service and parts support for their operators and are respected for their outstanding performance as a distributor.

Frank Ballou, Atari's National Sales Manager, said, "We are pleased to have Brady Distributing representing Atari in Virginia. They have been an excellent distributor in North Carolina and have introduced many operators to our products; I know this will continue in Virginia."

WHAT IF...

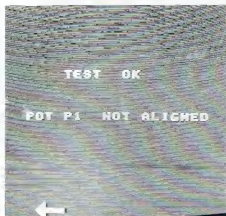
A GAME ROOM WAS ESTABLISHED IN THE EMPLOYEE LOUNGE OF A CORPORATION ADJACENT TO THE CAFETERIA - MANY LARGE VENDING OPERATORS ALSO OPERATE GAMES.

A SELF-TEST FOR DIAGNOSIS

Atari games introduced since October, 1976, include an easy-to-use self-test system to assist in diagnosing technical problems. The test takes approximately 30 seconds to 1 minute to complete on any game and checks 75 to 80% of the solid-state circuitry, player controls, switches, and lights on the game. The test should be implemented whenever the game is opened for collections or servicing; the self-test can indicate potential future problems as well as helping to pinpoint current problem areas.

This system has been designed to give operators a simple way to diagnose problems without needing special training in solid-state technology or any additional equipment. A switch inside the coin door is used to put the game into test mode. The video display together with audio checks indicates where any problems are located.

A section in the technical manual on



each game gives a list of how to interpret problem indicators on the self-test. Most games' self-test includes two phases, one to check the solid state circuitry and another to check the controls and switches. Newer games also include checks for alignment and adjustment of the player controls.

For example, the following describes the self-test on Pool Shark™.

1. Place self-test switch in ON position.
2. "Test OK" means no problem with computer memory. "Test A, B, C, D, E, or F" means there may be a circuit board problem; check page 4 of manual for further identification.
3. "Pot 1 Aligned" tests X axis of left joystick control. "Push Start 2" to continue to check Pot 2, 3, and 4 (X & Y axis for left and right controls) for alignment. If any pot

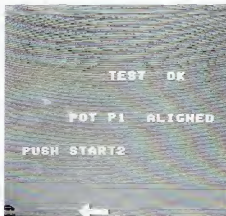
is "Not Aligned" it can easily be adjusted by rotating the indicated potentiometer on the PC board.

4. "Test Complete" displayed, all lights on the game flash as it is ready for the lamp and switch test. Start and coin switches are depressed and an audio sound indicates proper operation of the circuit.
5. Return self-test switch to OFF and the game will return to the attract mode for play.

Night Driver™, Sprint 2™, Domino™, Triple Hunt™, Sprint 8™, Drag Race™, and Starship™ have similar test procedures. The Atarians™ and Time 2000™ games also have a complete self-test system built-in to check all solid-state and electro-mechanical parts on the game.

Atari engineering division is working

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TECHNICAL TIPS

SPRINT 2™ ROM TEST

In the self-test system on Sprint 2, after the RAM test is complete the ROM test and game structuring is displayed. If a ROM is not operating properly, black numbers will appear in the center of the screen. These numbers indicate which ROM needs replacing as shown in the following chart.

Number	ROM Location
0 or 1	A-1
2 or 3	C-1
4 or 5	D-1
6 or 7	E-1

ATARI GIVES RELIABILITY



Atari tests games for reliability at various stages in the production cycle. Each game is tested individually to assure maximum quality and, in turn, minimize service needs once the product is on location.

"Durastress™ tested solid state circuitry" describes Atari's thorough testing technique used to insure all printed circuit boards put into the games will operate properly for an extended time period. The PC boards are placed in large ovens with the power on to identify and replace any components which are sensitive to heat or subject to early failures. This procedure is referred to as the "burn-in process" and is used by most quality conscious computer and electronic product companies.

John Petlansky, Production Manager of Atari's PC facility, said, "The Durastress process was instituted and expanded at substantial cost to provide Atari's customers with increased electronics reliability by burning-in the circuit board at 60°C for 24 to 48 hours, thereby identifying and replacing those components and devices that would fail in the early life of the electronics." The ovens used in this procedure have the capability of testing almost 400 PC boards at a time. After the Durastress procedure is complete, each board is re-tested individually to assure proper operation.

Player controls designed for each game are also tested for durability and reliability. The controls are put through both mechanical and human testing procedures. They are tested in all stages of engineering development, in on-location field tests and again in the production cycle.

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SINGLE CABINET TRIPLE HUNT™ AVAILABLE



Triple Hunt™ is now available in a compact single cabinet to add even more versatility to this three-in-one shooting game. The all-new concept of changing the game from Hit The Bear™ to Witch Hunt™ to Raccoon Hunt™ with a simple switch on the PC board and replacement of graphics can now fit into even more locations. The single cabinet model has the same 3-D visual effects and play action of the larger two cabinet unit.

The high impact of all three Triple Hunt™ games can bring triple action shooting excitement to smaller game areas and arcades with this new smaller model. The dimensions of the new cabinet are 25¼" wide, 42" deep and 69½" high. This reduces the overall space needed for the unit by about 70%.

Atari's built-in self-test system on Triple Hunt assists in maintenance and also includes an easy gun alignment method. To align the gun there is no need to adjust the controls, just switch the game to test mode and shoot the cross marks in the upper and lower corners of the screen. It also checks the circuitry and other switches on the game.

"We believe that the single cabinet Triple Hunt will give even more operators the opportunity to benefit from the variety and profitability of the three games in this unit," said Frank Ballouz, National Sales Manager.

Public Relations (Continued from page 2)

tremendously in their auditory and visual skills. The growth in reading ranged from one school year to two and one half years."

The rewards of this type of donation can be great. In addition to helping the students to learn as indicated by their teacher, each youngster sent an illustrated thank you letter to Ira Bettelman for the game. These letters are very special. Each letter indicates the student's improvement in score; they are proud of their accomplishments on the game and show their appreciation.

The Public Relations efforts of people in the coin-op industry are important. The benefits of knowing that you are helping someone in the community can be personally rewarding. Also this can have further positive effects on improving the image of the industry.

Atari would like to thank C. A. Robinson, the Bettelmans and others who have made an effort to work towards positive public relations in their community.

Self-Test (Continued from page 3)

to make the self-test system more comprehensive. They have made efforts to develop a test system for operators to use for easy identification of problem areas. This represents another accomplishment in Atari's program to offer distributors and operators the best service support in the industry.

Reliability (Continued from page 3)

Once the games have been assembled in production, they are tested again. The games are closed up and left on for 16 to 24 hours. This is a second Durastress or burn-in process after the game is in its final stage of production. Any potential problems are then identified and corrected in a detailed quality assurance test prior to releasing the product for shipment.

Atari feels that quality and reliability are of primary importance. Extensive testing procedures have been developed to assure our customers will obtain maximum income potential from our products. Atari's exclusive built-in self-test feature on every new game since Night Driver™ is another example of the efforts to minimize service needs. (See article on Self-Test Procedure on page 3.) We are continually working to improve these test procedures to provide operators with the best products for their business.

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